

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# KBP3005G THRU KBP310G

### **Features**

- Surge overload ratings 80 amperes peak
- High Reliability
- Ideal for printed circuit board
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

### **Maximum Ratings**

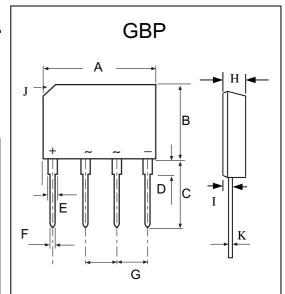
- I<sup>2</sup>t Rating for Fusing(t<8.3ms):26 A<sup>2</sup>s
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

| MCC<br>Catalog<br>Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak<br>Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|--------------------------|-------------------|--|---------------------------|--------------------------------------|
| KBP3005G                 | KBP3005G          |  | 35V                       | 50V                                  |
| KBP301G                  | KBP301G           | 100V   | 70V                       | 100V                                 |
| KBP302G                  | KBP302G           | 200V   | 140V                      | 200V                                 |
| KBP304G                  | KBP304G           | 400V   | 280V                      | 400V                                 |
| KBP306G                  | KBP306G           | 600V   | 420V                      | 600V                                 |
| KBP308G                  | KBP308G           | 800V   | 560V                      | 800V                                 |
| KBP310G                  | KBP310G           | 1000V  | 700V                      | 1000V                                |

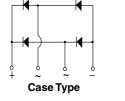
### Electrical Characteristics @ 25°C Unless Otherwise Specified

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|--|-----------------------|------------------|---|--|
| Average Forward Current  | $I_{F(AV)}$           | 3.0A             | T <sub>A</sub> = 55°C                           |  |
| Peak Forward Surge<br>Current                                    | I <sub>FSM</sub>      | 80A              | 8.3ms, half sine                                |  |
| Maximum Forward<br>Voltage Drop Per<br>Element                   | $V_{F}$               | 1.1V             | $I_{FM}$ = 2.0A per<br>element;<br>$T_A$ = 25°C |  |
| Maximum DC Reverse Current At Rated DC Blocking Voltage          | I <sub>R</sub>        | 10μA<br>1mA      | T <sub>J</sub> = 25°C<br>T <sub>J</sub> = 100°C |  |
| Typical Thermal<br>Resistance(note 2)                            | $R_{thJA}$ $R_{thJL}$ | 30°C/W<br>11°C/W |   |  |

3 Amp Bridge Rectifier 50 to 1000 Volts



|     | INCHES    |      | MM       |       |      |
|-----|-----------|------|----------|-------|------|
| DIM | MIN       | MAX  | MIN      | MAX   | NOTE |
| Α   | .561      | .580 | 14.25    | 14.75 |      |
| В   | .410      | .417 | 10.20    | 10.60 |      |
| С   | .561      | .581 | 14.25    | 14.73 |      |
| D   | .090      |      | 2.29     |       |      |
| E   | .046      | .056 | 1.17     | 1.42  |      |
| F   | .030      | .034 | 0.76     | 0.86  |      |
| G   | .140      | .160 | 3.56     | 4.06  |      |
| Н   | .138      | .161 | 3.50     | 4.10  |      |
| 1   | .045      | .060 | 1.14     | 1.52  |      |
| J   | .110 x45° |      | 2.80x45° |       |      |
| K   | .012      | .025 | .300     | .641  |      |

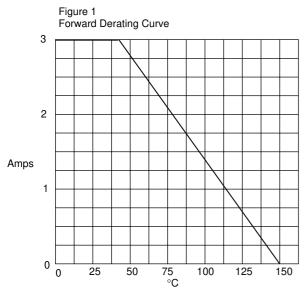


Note: 1. High Tempertaure Solder Exemption Applied, See EU Directive Annex Notes 7a  $\,$ 

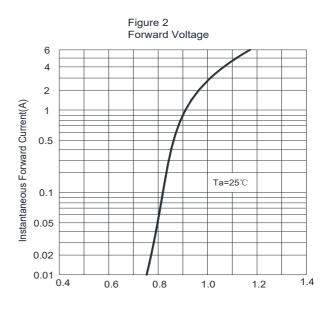
<sup>2.</sup> Thermal resistance from junction to ambint and junction to lead mounted on P.C.B. with, 0.59 X 0.59"(15 X 15mm) copper pads.

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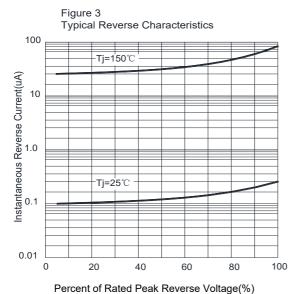
Average Forward Rectified Current - Amperes versus Ambient Temperature - °C



Instantaneous Forward Voltage(V)

Surge Forward Current Capability

Figure 4



140 120 Peak Forward Surge Current(A) 100 non-repetiti Tj=25℃ 80 60 40 20 0 5 50 100 20



### **Ordering Information**

| Device           | Packing            |
|------------------|--------------------|
| (Part Number)-BP | Bulk: 4.2Kpcs/Ctn; |

Note: Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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